

At the Cow Comfort Conference, hosted by your North Country Regional Ag Team, in Syracuse this March, Dr. Albert De Vries, University of Florida, spoke on the economics of cow comfort. While overstocking can improve economic returns on investments in facilities, it can have negative impacts on the cow, so how much can you overstock before you reduce your profitability? The optimal stocking density will vary from farm to farm, and within farm under different circumstances. Dr. De Vries highlighted some key things to consider to get a better idea of what overcrowding might be costing you.

What about the known impacts of overcrowding on feeding behavior, lying time, lameness, reproduction, and culling rates? While it's critical to consider all factors when looking at profitability, milk production is going to play an important role. Dr. De Vries' analysis focuses on the impact on milk production and reproduction, and he notes that the results may be underestimating the effects of overstocking since lameness and other factors are not accounted for. Figure 1 below shows how profits change as you overstock at different levels of milk loss. You can afford to overcrowd more if your cows are dropping less in milk production as a result. For example, if you just consider the effect of milk loss, you could potentially overcrowd at 123% and still be profitable if your cows only dropped 1.5 lbs/d, but if they dropped 2 lbs/d, you can only get away with about 108% stocking density.

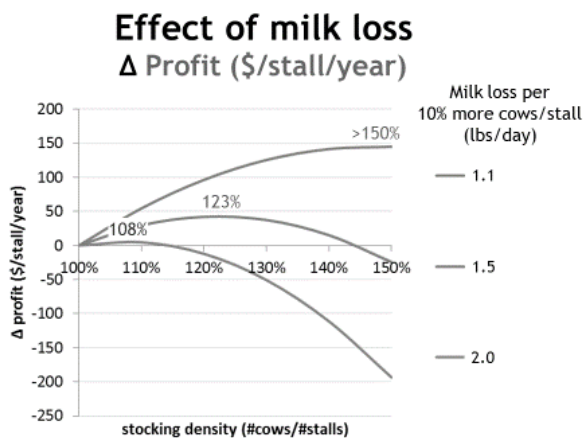


Figure 1. The effect of a milk loss of 1.1, 1.5, and 2.0 lbs/cow/d on your profitability at various stall stocking densities.

Another important factor to consider is milk price. According to Dr. De Vries, if milk price is low (similar to current milk prices), your cows cannot drop in milk yield much before you start to lose profit by overcrowding. Figure 2 below indicates that with milk at \$18/cwt, your cows can only drop about 0.5 lb/cow/d if you want to still be profitable at 110% stall stocking density.

How much ↓ milk yield for =profit?

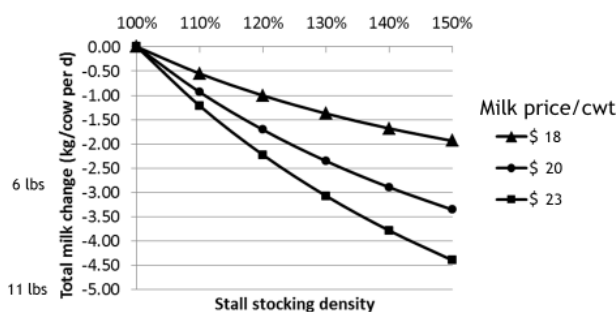


Figure 2. The amount of milk/cow/d you can afford to lose while maintaining profits with overcrowding at various levels when the milk price is \$18, \$20, and \$23/cwt.

It is important to regularly review your current stall stocking density rates across the farm, and take a minute to figure out what overstocking could be costing you. The University of Florida Extension offers a free online tool to calculate the economic impacts of various stall stocking densities on your dairy at <http://dairy.ifas.ufl.edu/tools/>. For more information please contact Lindsay Ferlito (Lc636@cornell.edu; 607-592-0290).